

**STATE OF MISSOURI**  
**DEPARTMENT OF NATURAL RESOURCES**  
**MISSOURI CLEAN WATER COMMISSION**



**CONSTRUCTION PERMIT**

The Missouri Department of Natural Resources hereby issues a permit to:

Thomas J Corbett, Owner  
Corbett Lime Sludge Holding Basin  
691 NE Hwy 23  
Knob Noster, MO 65336

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (department).

As the department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

October 8, 2024  
Effective Date

October 7, 2026  
Expiration Date

  
John Hoke, Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **I. CONSTRUCTION DESCRIPTION**

Construction of an earthen basin designed at 353 ft by 88 ft at the inside top of berm, with a 9-ft total depth and a 6-ft design operating depth. The basin will accept only lime sludge from the USAF Whiteman Drinking Water Plant (MOG640090; MO1079501) for land application per the approved land application management plan (LAMP).

This project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater treatment facility.

### **II. COST ANALYSIS FOR COMPLIANCE**

The department is not required to complete a cost analysis for compliance, because the facility is not a combined or separate sanitary sewer system for a publicly-owned treatment works.

### **III. CONSTRUCTION PERMIT CONDITIONS**

The permittee is authorized to construct subject to the following conditions:

1. This construction permit does not authorize discharge.
2. All construction shall be consistent with plans and specifications signed and sealed by Ross A. Kasmann, P.E., President of Engineering Surveys & Services, and as described in this permit.
3. The department must be contacted in writing prior to making any changes to the plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(11).
4. State and federal law does not permit bypassing of raw wastewater, therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the department's Kansas City Regional Office per 10 CSR 20-7.015(9)(G).
5. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of one acre or more to obtain a Missouri state operating permit to discharge stormwater. The permit requires best management practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the department's ePermitting system available online at <https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem>. See <https://dnr.mo.gov/data-e-services/water/electronic-permitting-epermitting> for more information.

6. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.
- Unless another distance is determined by the Missouri Geological Survey or by the department's Public Drinking Water Branch, the minimum distance between wastewater treatment facilities and all potable water sources shall be at least 300 feet. 10 CSR 20-8.140(2)(C)1.
  - No treatment unit with a capacity of 22,500 gallons per day (gpd) or less shall be located closer than the minimum distance of 200 feet to a neighboring residence and 50 feet to property line for lagoons. See 10 CSR 20-2.010(68) for the definition of a residence. 10 CSR 20-8.140(2)(C)2
  - Facilities shall be readily accessible by authorized personnel from a public right-of-way at all times. 10 CSR 20-8.140(2)(D)
  - A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140(7)(E)
  - Adequate provisions shall be made to effectively protect facility personnel and visitors from hazards. The following shall be provided to fulfill the particular needs of each wastewater treatment facility:
    - Fencing. Enclose the facility site with a fence designed to discourage the entrance of unauthorized persons and animals; 10 CSR 20-8.140(8)(A)
  - Lagoon berms shall be constructed of relatively impervious material and compacted to at least 95 percent maximum dry density test method to form a stable structure. 10 CSR 20-8.200(4)(A)1.
  - The minimum berm width shall be eight feet to permit access of maintenance vehicles. 10 CSR 20-8.200(4)(A)2.
  - Minimum freeboard shall be two feet. 10 CSR 20-8.200(4)(A)3.
  - An emergency spillway shall be provided that—
    - Prevents the overtopping and cutting of berms; 10 CSR 20-8.200(4)(A)4.A.
    - Is compacted and vegetated or otherwise constructed to prevent erosion; 10 CSR 20-8.200(4)(A)4.B. and
    - Has the ability for a representative sample to be collected if discharging. 10 CSR 20-8.200(4)(A)4.C.
  - The soil of the lagoon bottom shall be compacted with the moisture content between 2 percent below and 4 percent above the optimum water content and compacted to at least 95 percent maximum dry density test method. 10 CSR 20-8.200(4)(B)
  - The lagoon shall be sealed to ensure that seepage loss is as low as possible and has a design permeability not exceeding  $1.0 \times 10^{-7}$  cm/sec. 10 CSR 20-8.200(4)(C)1.
  - The minimum thickness of the compacted clay liner must be 12 inches. For permeability coefficients greater than  $1.0 \times 10^{-7}$  cm/sec or for heads over 5 feet such as an aerated lagoon system, the following formula shall be used to determine minimum seal thickness, Equation 200-1 per 10 CSR 20-8.200(4)(C)2.:

Equation 200-1

$$t = \frac{H \times K}{5.4 \times 10^{-7} \text{ cm/sec}}$$

where:

K = the permeability coefficient of the soil in question;

H = the head of water in the lagoon; and

t = the thickness of the soil seal.

- The wetted application area of a surface irrigation system must be located
  - Outside of flood-prone areas having a flood frequency greater than once every 10 years; 10 CSR 20-8.200(6)(B)1.
  - At least 150 feet from existing dwellings or public use areas, excluding roads or highways; 10 CSR 20-8.200(6)(B)2.A.
  - At least 50 feet inside the property line; 10 CSR 20-8.200(6)(B)2.B.
  - At least 300 feet from any sinkhole, losing stream, or other structure or physiographic feature that may provide direct connection between the ground water table and the surface; 10 CSR 20-8.200(6)(B)2.C.
  - At least 300 feet from any existing potable water supply well not located on the property. Adequate protection shall be provided for wells located on the application site; 10 CSR 20-8.200(6)(B)2.D.
  - 100 feet to wetlands, ponds, gaining streams (classified or unclassified; perennial or intermittent); 10 CSR 20-8.200(6)(B)2.E. and
  - If an established vegetated buffer or the wastewater is disinfected, the setbacks established in subsections (A)–(E) above may be decreased if the applicant demonstrates the risk is mitigated. 10 CSR 20-8.200(6)(B)2.F.
- The wetted application area of a surface irrigation system must be fenced, or if not fenced, provide in the construction permit application or the facility plan, the—
  - Method of disinfection being utilized; 10 CSR 20-8.200(6)(B)3.A.
  - Suitable barriers in place, 10 CSR 20-8.200(6)(B)3.B. or
  - Details on how public access is limited and not expected to be present. 10 CSR 20-8.200(6)(B)3.C.
- At a minimum, treatment prior to irrigation shall provide performance equivalent to that obtained from a primary wastewater lagoon cell and include 105 days wastewater storage in addition to the primary volume. 10 CSR 20-8.200(6)(C) For facilities that operate or generate flows only from November through March, the minimum storage is required. 10 CSR 20-8.200(6)(C)1.E.
- Public Access Areas. Wastewater shall be disinfected prior to irrigation (not storage) in accordance with 10 CSR 20-8.190. 10 CSR 20-8.200(6)(F)
- The public shall not be allowed into an area when irrigation is being conducted; 10 CSR 20-8.200(6)(F)2.

7. Upon completion of construction:

- A. Thomas J. Corbett will become the continuing authority for operation and maintenance of these facilities;
- B. Submit an electronic copy of the as built if the project was not constructed in accordance with previously submitted plans and specifications;
- C. Submit the Statement of Work Completed form to the department in accordance with 10 CSR 20-6.010(5)(N) (<https://dnr.mo.gov/document-search/wastewater-construction-statement-work-completed-mo-780-2155>) and request issuance of a MOG64 operating permit. Form E and the first general permit annual fee has already been submitted.

## **REVIEW SUMMARY**

### **8. CONSTRUCTION PURPOSE**

Construction of an earthen basin is needed to hold lime sludge residuals prior to land application. The USAF Whiteman Drinking Water Plant (MOG640090; MO1079501) contracted with Thomas Corbett, of Corbett Construction, to accept excess lime sludge residuals during winter months then to land apply as needed.

### **9. FACILITY DESCRIPTION**

This a new earthen basin being constructed to store residual lime sludge and from which the residual lime sludge would be land applied to up to 32 acres at a rate of less than 1 inch per year.

The Corbett Lime Sludge Holding Basin is located at 691 NE Hwy 23 (southeast of its intersection with NE 700<sup>th</sup> Rd), ~5½ miles north of Knob Noster (and ~8.5 miles north of Whiteman AFB), in Johnson County, Missouri. The facility is designed to accept ~12,000 gallons per week (~192,000 gallons per season) of residual lime sludge, which is ~1,715 gpd design average flow and a hydraulic population equivalent of ~18. The 1-in-10-year rainfall minus evaporation for a winter storage period of 105 days (*the minimum required in Johnson County*) would be 19.4 inches.

### **10. COMPLIANCE PARAMETERS**

The proposed project is required to meet the monitoring requirements of MOG640252, including Part IV Table B, Part V Table C, and Part VI as applicable.

### **11. REVIEW of MAJOR TREATMENT DESIGN CRITERIA**

#### **Construction will cover the following items:**

- Earthen Basin Construction is designed for 12,000 gallons per week of residual lime sludge, which is an effective Population Equivalent of 18 based on hydraulic loading.
- Flow Measurement – Since this is a holding basin for excess residual lime sludge from the USAF Whiteman Drinking Water Plant (MOG640090; MO1079501) when land application cannot occur, flow measurement would be made using the equipment used to haul sludge to and from the basin. No other sources of wastewater or residuals are allowed, and no discharges from the basin are expected.
- Single-Cell Earthen Holding Basin – The earthen basin will be constructed and sealed with a 1-ft compacted clay liner using clay rich soils at the basin site. The basin will have 3:1 sloping walls with a total depth from the top of the berms to the basin floor of 9 ft, which includes 1 ft above the emergency spillway, 2 ft of freeboard, and a design operating depth from 4 to 6 ft. At least 2 ft of lime sludge residuals will be maintained in the basin from at least June through September to protect the clay seal. The non-aerated basin is ~ 353 by 88 ft at the inside top of berm, a design operating

surface area of ~ 0.54 acres, and a wastewater volume from ~ 75,128 to 99,552 cu ft (~ 561,957 to 744,649 gallons) based on the minimum volume. This provides approximately 328-434 days of retention at the proposed design flow and 98.5 to 130 days with the 1-in-10-year rainfall minus evaporation for the minimum-required storage period. The basin will need to be fully emptied prior to the beginning of winter to ensure sufficient volume is available during the wettest year in 10. The berm width will be 8 ft. The basin will be fenced. The emergency spillway would be ~ 20 ft wide and be located at the southwestern end of the basin.

## **12. OPERATING PERMIT**

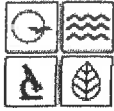
After completion of construction project, submit the following: (1) statement of work completed and (2) as-builts (*if the project was not constructed in accordance with previously submitted plans and specifications*). Missouri State Operating Permit, General Permit MOG640252 will be issued after receipt of the above documents.

## **V. NOTICE OF RIGHT TO APPEAL**

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission  
U.S. Post Office Building, Third Floor  
131 West High Street, P.O. Box 1557  
Jefferson City, MO 65102-1557  
Phone: 573-751-2422  
Fax: 573-751-5018  
Website: <https://ahc.mo.gov>

Scott Adams, P.E.  
Engineering Section  
scott.adams@dnr.mo.gov



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM  
**APPLICATION FOR CONSTRUCTION PERMIT –  
 WASTEWATER TREATMENT FACILITY**

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED \$1,000	CHECK NO. 20809
DATE RECEIVED 8/13/24 JB	

**APPLICATION OVERVIEW**

The Application for Construction Permit – Wastewater Treatment Facility form has been developed in a modular format and consists of Part A and B. **All applicants must complete Part A.** Part B should be completed for applicants who currently land-apply wastewater or propose land application for wastewater treatment. **Please read the accompanying instructions before completing this form. Submittal of an incomplete application may result in the application being returned.**

**PART A – BASIC INFORMATION**

**1.0 APPLICATION INFORMATION** (Note – If any of the questions in this section are answered NO, this application may be considered incomplete and returned.)

- 1.1 Is this a Federal/State funded project?  YES  N/A Funding Agency: \_\_\_\_\_ Project #: \_\_\_\_\_
- 1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?  
 YES Date of Approval: \_\_\_\_\_  N/A
- 1.3 Has the department approved the proposed project's facility plan\*?  
 YES Date of Approval: \_\_\_\_\_  NO (If No, complete No. 1.4.)
- 1.4 [Complete only if answered No on No. 1.3.] Is a copy of the facility plan\* for wastewater treatment facilities included with this application?  
 YES  NO  Exempt because No treatment proposed, basis of design is attached.
- 1.5 Is a copy of the appropriate plans\* and specifications\* included with this application?  
 YES Denote which form is submitted:  Hard copy  Electronic copy (See instructions.)  NO
- 1.6 Is a summary of design\* included with this application?  YES  NO
- 1.7 Has the appropriate operating permit application (A, B, or B2) been submitted to the department?  
 YES Date of submittal: \_\_\_\_\_  
 Enclosed is the appropriate operating permit application and fee submittal. Denote which form:  A  B  B2  
 N/A: However, In the event the department believes that my operating permit requires revision to permit limitation such as changing equivalent to secondary limits to secondary limits or adding total residual chlorine limits, please share a draft copy prior to public notice?  YES  NO
- 1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency?  YES  NO
- 1.9 Is the appropriate fee or JetPay confirmation included with this application?  YES  NO  
 See Section 7.0

\* Must be affixed with a Missouri registered professional engineer's seal, signature and date.

**2.0 PROJECT INFORMATION**

2.1 NAME OF PROJECT Corbett Lime Sludge Holding Basin	2.2 ESTIMATED PROJECT CONSTRUCTION COST \$ n/a
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2.3 PROJECT DESCRIPTION  
 Construct a new lime sludge holding basin. Inside of berm to inside of berm dimensions are 320' by 54'.

2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION  
 Per the drinking water permit, Whiteman Air Base community water system ID#: MO1079501.

2.5 DESIGN INFORMATION  
 A. Current population: \_\_\_\_\_; Design population: \_\_\_\_\_  
 B. Actual Flow: \_\_\_\_\_ gpd; Design Average Flow: \_\_\_\_\_ gpd;  
 Actual Peak Daily Flow: \_\_\_\_\_ gpd; Design Maximum Daily Flow: \_\_\_\_\_ gpd; Design Wet Weather Event: \_\_\_\_\_

2.6 ADDITIONAL INFORMATION  
 A. Is a topographic map attached?  YES  NO  
 B. Is a process flow diagram attached?  YES  NO

RECEIVED

AUG 13 2024

Water Protection Program



3.0 WASTEWATER TREATMENT FACILITY				
NAME		TELEPHONE NUMBER WITH AREA CODE		E-MAIL ADDRESS
ADDRESS (PHYSICAL)		CITY	STATE	ZIP CODE COUNTY
Wastewater Treatment Facility: Mo- (Outfall Of )				
3.1 Legal Description: <u>      </u> ¼, <u>NE</u> ¼, <u>NW</u> ¼, Sec. <u>22</u> , T <u>47N</u> , R <u>24W</u> (Use additional pages if construction of more than one outfall is proposed.)				
3.2 UTM Coordinates Easting (X): <u>38.8556</u> Northing (Y): <u>-93.5460</u> For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)				
3.3 Name of receiving streams: <u>      </u>				
4.0 PROJECT OWNER				
NAME		TELEPHONE NUMBER WITH AREA CODE		E-MAIL ADDRESS
Corbett Construction		660.909.8251		corbett7@iland.net
ADDRESS		CITY	STATE	ZIP CODE
621 NE 1201 Road		Knob Noster	MO	65336
5.0 CONTINUING AUTHORITY: A continuing authority is a company, business, entity or person(s) that will be operating the facility and/or ensuring compliance with the permit requirements.				
NAME		TELEPHONE NUMBER WITH AREA CODE		E-MAIL ADDRESS
Corbett Construction		660.909.8251		corbett7@iland.net
ADDRESS		CITY	STATE	ZIP CODE
5.1 A letter from the continuing authority, if different than the owner, is included with this application. <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A				
5.2 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A MISSOURI PUBLIC SERVICE COMMISSION REGULATED ENTITY.				
A. Is a copy of the certificate of convenience and necessity included with this application? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				
5.3 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A PROPERTY OWNERS ASSOCIATION.				
A. Is a copy of the as-filed restrictions and covenants included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO n/a				
B. Is a copy of the as-filed warranty deed, quitclaim deed or other legal instrument which transfers ownership of the land for the wastewater treatment facility to the association included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
C. Is a copy of the as-filed legal instrument (typically the plat) that provides the association with valid easements for all sewers included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
D. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
6.0 ENGINEER				
ENGINEER NAME / COMPANY NAME		TELEPHONE NUMBER WITH AREA CODE		E-MAIL ADDRESS
Ross Kasmann, PE / Engineering Surveys & Services		573.449.2646 x243		rkasmann@ess-inc.com
ADDRESS		CITY	STATE	ZIP CODE
1775 West Main Street		Sedalia	MO	65301
7.0 APPLICATION FEE				
<input checked="" type="checkbox"/> CHECK NUMBER <u>20809</u> <input type="checkbox"/> JETPAY CONFIRMATION NUMBER				
8.0 PROJECT OWNER: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.				
PROJECT OWNER SIGNATURE				
<i>Thomas J Corbett</i>				DATE
Thomas J Corbett				8/12/2024
TITLE OR CORPORATE POSITION		TELEPHONE NUMBER WITH AREA CODE		E-MAIL ADDRESS
Owner		660-287-0568		corbett7@iland.net
Mail completed copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176				
<b>END OF PART A.</b>				
<b>REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHETHER PART B NEEDS TO BE COMPLETE.</b>				



**PART B – LAND APPLICATION ONLY**

**(Submit only if the proposed construction project includes land application of wastewater.)**

**8.0 FACILITY INFORMATION**

8.1 Type of wastewater to be irrigated:  Domestic  State/National Park  Seasonal business  
 Municipal  Municipal with a pretreatment program or significant industrial users  
 Other (explain) \_\_\_\_\_

8.2 Months when the business or enterprise will operate or generate wastewater:  
 12 months per year  Part of the year (list months): \_\_\_\_\_

8.3 This system is designed for:  
 No-discharge.  
 Partial irrigation when feasible and discharge rest of time.  
 Irrigation during recreational season, April – October, and discharge during November – March.  
 Other (explain) \_\_\_\_\_.

**9.0 STORAGE BASINS**

9.1 Number of storage basins: 1 (Use additional pages if greater than three basins.)

9.2 Type of basins:  Steel  Concrete  Fiberglass  Earthen  Earthen with membrane liner

9.3 Storage basin dimensions at inside top of berm (feet). Report freeboard as feet from top of berm to emergency spillway or overflow pipe.  
Basin #1: Length 320' Width 54' Depth 9 Freeboard 4 Depth \_\_\_\_\_ Safety \_\_\_\_\_ % Slope \_\_\_\_\_  
Basin #2: Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Freeboard \_\_\_\_\_ Depth \_\_\_\_\_ Safety \_\_\_\_\_ % Slope \_\_\_\_\_  
Basin #3: Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Freeboard \_\_\_\_\_ Depth \_\_\_\_\_ Safety \_\_\_\_\_ % Slope \_\_\_\_\_

9.4 Storage Basin operating levels (report as feet below emergency overflow level).  
Basin #1: Maximum operating water level 763.5 ft Minimum operating water level 758.5 ft  
Basin #2: Maximum operating water level \_\_\_\_\_ ft Minimum operating water level \_\_\_\_\_ ft  
Basin #3: Maximum operating water level \_\_\_\_\_ ft Minimum operating water level \_\_\_\_\_ ft

9.5 Design depth of sludge in storage basins.  
Basin #1: 5 ft Basin #2: \_\_\_\_\_ ft Basin #3: \_\_\_\_\_ ft

9.6 Existing sludge depth, if the basins are currently in operation.  
Basin #1: \_\_\_\_\_ ft Basin #2: \_\_\_\_\_ ft Basin #3: \_\_\_\_\_ ft

9.7 Total design sludge storage: \_\_\_\_\_ dry tons and 68,200 cubic feet

**10.0 LAND APPLICATION SYSTEM**

10.1 Number of irrigation sites \_\_\_\_\_ Total Acres \_\_\_\_\_ Maximum % field slopes \_\_\_\_\_  
Location: \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres n/a  
Location: \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres  
Location: \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres  
(Use additional pages if greater than three irrigation sites.)

10.2 Type of vegetation:  Grass hay  Pasture  Timber  Row crops  
 Other (describe) \_\_\_\_\_

10.3 Wastewater flow (dry weather) gallons per day: Average annual \_\_\_\_\_ Seasonal \_\_\_\_\_ Off-season \_\_\_\_\_

10.4 Land application rate (design flow including 1-in-10 year storm water flows):  
Design: \_\_\_\_\_ inches/year \_\_\_\_\_ inches/hour \_\_\_\_\_ inches/day \_\_\_\_\_ inches/week  
Actual: \_\_\_\_\_ inches/year \_\_\_\_\_ inches/hour \_\_\_\_\_ inches/day \_\_\_\_\_ inches/week

10.5 Total irrigation per year (gallons): Design: \_\_\_\_\_ gal Actual: \_\_\_\_\_ gal

10.6 Actual months used for irrigation (check all that apply):  
 Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

10.7 Land application rate is based on:  
 Hydraulic Loading  Other (describe) Drinking water permit for MO1079501  
 Nutrient Management Plan (N&P) If N&P is selected, is the plan included?  YES  NO